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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/674,688	02/27/2001	Brian Keenan	P24,524 USA.	1576

7590 09/03/2003

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EXAMINER

BRUENJES, CHRISTOPHER P

ART UNIT	PAPER NUMBER
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1772

DATE MAILED: 09/03/2003

13

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/674,688

Applicant(s)

KEENAN, BRIAN

Examiner

Christopher P Bruenjes

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-- **Th MAILING DATE f this communication app ars on th cover she t with the correspondence address --**
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 July 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,4,7,8 and 11-38 is/are pending in the application.
- 4a) Of the above claim(s) 3,4,7,8 and 11-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 21-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 11.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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DETAILED ACTION

Election/Restrictions

1. Claims 3-4, 7-8, and 11-20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 12.

2. Applicant's election with traverse of Claims 1 and 21-38 in Paper No. 12 is acknowledged. The traversal is on the ground(s) that there is no burden. This is not found persuasive because burden is not a requirement for determining if two inventions lack unity. This application is a 371 national case of an international application and separation of inventions is performed under the international rule of unity rather than the US restriction practice. To find a lack of unity between inventions the two inventions must lack the same or corresponding special technical feature, and it was determined that the technical feature does not provide a contribution over the prior art and therefore no single general inventive concept exists.

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The requirement is still deemed proper and is therefore made FINAL.

Drawings

3. The drawings were received on July 2, 2003. These drawings are acceptable.

WITHDRAWN REJECTIONS

4. The objections to the specification of record in Paper #10, Pages 4-6 Paragraphs 7-8 have been withdrawn due to the fact that this case is a national entry of an international application and are not required to have the headings and cross reference section referred to in the last office action.

5. The 35 U.S.C. 112 rejections of claims 1 and 2 of record in Paper #10, Pages 6-8 Paragraphs 9-10 have been withdrawn due to the Applicant's arguments and amendment in Paper #12.

6. The 35 U.S.C. 102 rejection of claim 2 as anticipated by Williams of record in Paper #10, Pages 8-10 Paragraph 11 has been withdrawn due to Applicant's amendment in Paper #12.

REPEATED REJECTIONS

7. The objection to the abstract is repeated for the reasons previously of record in Paper #10, Page 4 Paragraphs 5-6.

8. The 35 U.S.C. 102 rejection of claim 1 as anticipated by Williams is repeated for the reasons previously of record in Paper #10, Pages 8-10 Paragraph 11.

NEW REJECTIONS

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

9. Claims 21-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Williams (AU 59,354/80).

Williams anticipates a part-cylindrical pre-formed insulation module including an unstriated insulation layer. The insulation layer does not have any cuts or ridges as shown in Figures 4-6. The insulation layer has an inner surface for contacting an outer surface of the component to be insulated and comprising insulating material having fibers sealed having no specific orientation relative to the module within said layer by a sealing agent. The glue used to adhere the insulation layer to the cladding inherently bonds the fibers together when it is

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adhering to the cladding layer, and therefore acts as a sealing agent or film around the insulation layer. The insulation layer is all fiberglass and therefore would be substantially uniform in composition and density over a cross section of said layer. A cladding layer (reference number 11) is shaped to the component to be insulated and directly adhered to the insulation layer at the outer surface thereof. Williams also teaches a connection means of two modules or sheaths formed as mating male-female members comprising beading on one edge which interlocks with female grooving on another edge (p.5, 1.19-23 and Fig. 38). The module is a part cylindrical module with cladding layer overlapping said insulation layer along the length of the module on both sides of a longitudinal axis to overlap with a cladding layer of said further module for at least partial connection therewith (fig. 33 and 38). The module is provided along its length with circumferential beads or grooves (p.5, 1.2-8) for location of a longitudinally disposed adjacent module (Fig. 39 and 41).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claims 1, 21-30 rejected under 35 U.S.C. 103(a) as being unpatentable over Farr et al (USPN 3,598,157) in view of Williams (AU 59,354/80).

Farr et al teach a part-cylindrical pre-formed insulation module for insulating a component including an insulation layer that doesn't have any ridges or cuts, therefore unstriated (Fig.1) with an inner surface for contacting an outer surface of the component to be insulated (Fig. 1), and comprising insulating material having no specific orientation relative to the module within said layer by a sealing agent or organic resin, said layer being substantially uniform in composition and

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density over a cross section of said layer, also including an outer surface and contacting surfaces (col.1, 1.69-75 and col.2, 1.1-5 and col.3, 1.21-47). There is provided a connection means, such as straps, wires or tape, disposed along the length of the body for hingelessly connecting with at least one further adjacent insulation module wherein said insulation and cladding layers of said module are disposed relative to each other such that on connection to said further insulation module, insulation layers of said module and said at least one further module are brought into contact along said contacting surfaces of the insulation layers of the modules for insulating at least a portion of the component (col.1, 1.69-75 and col.2, 1.1-6). Farr et al fail to explicitly teach a cladding layer on the outside surface of the insulation material. However, Williams teaches that a cladding layer (reference number 11) is shaped to the component to be insulated and directly adhered to the insulation layer at the outer surface thereof, in order to hold the insulation in place and to join the modules of insulation together. Williams also teaches a connection means of two modules or sheaths formed as mating male-female members comprising beading on one edge which interlocks with female grooving on another edge (p.5, 1.19-23 and Fig. 38). The module is a part cylindrical module with cladding layer overlapping

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said insulation layer along the length of the module on both sides of a longitudinal axis to overlap with a cladding layer of said further module for at least partial connection therewith (fig. 33 and 38). The module is provided along its length with circumferential beads or grooves (p.5, 1.2-8) for location of a longitudinally disposed adjacent module (Fig. 39 and 41). One of ordinary skill in the art would have recognized that a cladding layer and connection means from a modular insulation system are substituted for straps, wires, or tape of a modular insulation system for holding insulation in close abutment to each other so that no gaps are formed and the insulating properties of the modular insulation is improved, as taught by Williams.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute the cladding and connection means of Williams for straps, wires, or tape, in order to improve the connection means and to protect the insulation from exterior damage, as taught by Williams.

11. Claims 31-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Williams alone or in combination with Farr et al in view of Smith et al (USPN 4,659,871).

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Williams alone or in combination with Farr et al teach all that is shown above, but fail to explicitly teach that the sealing agent is acrylic emulsion or that a flame retardant is added to the sealing agent. However, Smith et al teach that in order to protect insulating materials from burning an outer film or sealing agent is provided over the insulating material. Smith et al also teach that the outer film or sealing agent includes an acrylic emulsion (col.3, 1.25-55), propylene glycol (col.4, 1.57-65), and a flame retardant such as alumina trihydrate (col.1, 1.36-45). The alumina trihydrate constitutes at least 60% by weight based on the total weight of the outer layer (col.1, 1.56-68). One of ordinary skill in the art would have recognized that depending on the intended end use of the insulating material are made flame retardant, as taught by Smith et al.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use an acrylic emulsion comprising propylene glycol and alumina trihydrate as the outer film or sealing agent of the insulation material in order to provide the insulating material with flame retardancy, which is necessary depending on the intended end use of the insulating material, as taught by Smith et al.

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ANSWERS TO APPLICANT'S AMENDMENTS

12. Applicant's arguments filed in Paper #12 regarding the objections to the specification and the 35 U.S.C. 112 rejections of claims 1 and 2 have been considered but are moot since the rejections have been withdrawn.

13. Applicant's arguments filed in Paper #12 regarding the 35 U.S.C. 102 rejection of claim 1 as anticipated by Williams have been fully considered but they are not persuasive.

In response to applicant's argument that Williams fails to teach insulating fibers sealed by a sealing agent, the glue used to adhere the fibers to the cladding is an adhesive film, which would adhere many of the fibers to each other as well as act as a layer between the fibers and the cladding. A solid layer over the fibers is a sealing layer or agent, because the glue seals the fibers by encasing the fibers before adhering to the cladding. The definition of unstriated is that there are no striae, which includes grooves, stripes, or ridges. Williams does not teach any grooves, stripes, or ridges and therefore the fibers are unstriated.

Conclusion

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14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher P Bruenjes whose telephone number is 703-305-3440. The examiner can normally be reached on Monday thru Friday from 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be

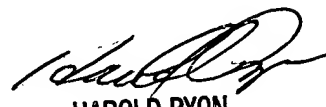
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reached on 703-308-4251. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Christopher P Bruenjes
Examiner
Art Unit 1772

CPB 
August 19, 2003


HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772

8/22/03